

B. Claims

The following is a complete listing of the claims, and replaces all earlier versions and listings.

1. (Currently Amended) A biochemical reaction cartridge, comprising:
a reaction portion, comprising a blank chamber and a passage, for effecting
a biochemical reaction, and

a solution storage portion, which is not superposed on said reaction portion
when not in use, for storing a solution in a position corresponding to the chamber,

wherein said solution storage portion is superposed on said reaction portion
at a time of use, so that the solution is moved from said solution storage portion to the
blank chamber of said reaction portion through a penetrable partition member,

wherein said reaction portion on which said solution storage portion is
superposed has a port at a side surface thereof for permitting access to the chamber,

wherein said reaction portion on which said solution storage portion is
superposed has a supply port in a surface facing said storage portion at a part thereof where
said storage portion is not superposed at the time of use, ~~and~~

wherein the chamber is opened outward by a first-stage pushing of a valve
stem with a tool needle to move the solution in said solution storage portion to the
chamber,

wherein the valve stem has a cut, which permits air to communicate
between the chamber and an outside of the chamber by the first-stage pushing, and

wherein the chamber is sealed up by a further second-stage pushing of the
valve stem with the tool needle.

2-3. (Cancelled)

4. (Previously Presented) A cartridge according to Claim 1, wherein said partition member is provided with two pressing rods including a shorter pressing rod for use in the first-stage pushing and a longer pressing rod for use in the second-stage pushing.

5. (Original) A cartridge according to Claim 4, wherein the shorter and longer pressing rods are coaxially disposed opposite from each other.

6. (Previously Presented) A cartridge according to Claim 1, wherein said cartridge has a code for representing information on a treatment sequence including an order of penetration of said partition member.

7. (Previously Presented) A cartridge according to Claim 1, wherein said cartridge has an identification code for representing a type of cartridge.

8. (Currently Amended) A biochemical treatment process, which uses a biochemical reaction cartridge comprising a reaction portion including at least one blank chamber and a plurality of passages, a solution storage portion including a plurality of storage chambers, which is not superposed on the reaction portion when not in use, for storing a solution in a positions corresponding to said at least one blank chamber, and at

least one penetrable partition member disposed between the solution storage portion and the reaction portion, wherein the solution storage portion is superposed on the reaction portion at a time of use, so that the solution is moved from the solution storage portion to the blank chamber of said reaction portion through a corresponding penetrable partition member, wherein said reaction portion on which said solution storage portion is superposed has a port at a side surface thereof for permitting access to the chamber,

wherein said reaction portion on which said solution storage portion is superposed has a supply port in a surface facing said storage portion at a part thereof where said storage portion is not superposed at the time of use, ~~and~~ wherein the chamber is opened outward by a first-stage pushing of a valve stem with a tool needle to move the solution in said solution storage portion to the chamber, wherein the valve stem has a cut, which permits air to communicate between the chamber and an outside of the chamber by the first-stage pushing, and wherein the chamber is sealed up by a further second-stage pushing of the valve stem with the tool needle; said process comprising:

a first step of moving a solution from an associated storage chamber to a corresponding blank chamber of the reaction portion by penetrating said at least one partition member,

a second step of effecting a treatment with the solution moved to the blank chamber of the reaction portion,

a third step of moving a solution in a storage chamber other than the chamber from which the solution is moved in said first step by selectively penetrating at least one second partition member other than the partition member used in said first step, and

a fourth step of effecting treatment with the solution moved in the storage chamber in said third step.

9. (Previously Presented) A process according to Claim 8, wherein said cartridge has a code for representing information on a treatment sequence including the order of penetration of said partition members.

10. (Previously Presented) A process according to Claim 8, wherein said cartridge has an identification code for representing the type of cartridge.

11. (Currently Amended) A biochemical treatment apparatus,
comprising:

an accommodation unit in which a biochemical reaction cartridge comprising a reaction portion, comprising at least one blank chamber and at least one passage, for effecting a biochemical reaction, and a solution storage portion, which is not superposed on the reaction portion when not in use, for storing a solution in a position corresponding to said at least one blank chamber, is mounted, wherein the solution storage portion is superposed on the reaction portion at a time of use, so that the solution is moved from the solution storage portion to the blank chamber of the reaction portion through a penetrable partition member, wherein said reaction portion on which said solution storage portion is superposed has a port at a side surface thereof for permitting access to the chamber, wherein said reaction portion on which said solution storage portion is superposed has a supply port in a surface facing said storage portion at a part thereof where

said storage portion is not superposed at the time of use, wherein the chamber is opened outward by a first-stage pushing of a valve stem with a tool needle to move the solution in said solution storage portion to the chamber, wherein the valve stem has a cut, which permits air to communicate between the chamber and an outside of the chamber by the first-stage pushing, and wherein the chamber is sealed up by a further second-stage pushing of the valve stem with the tool needle,

driving means for driving penetration means for penetrating a partition member of the biochemical reaction cartridge mounted in said accommodation unit; and

reaction treatment means for causing a reaction of a specimen in the biochemical reaction cartridge by acting on the biochemical reaction cartridge,

wherein said biochemical treatment apparatus further comprises control means for successively driving said drive means and said reaction treatment means.

12. (Original) An apparatus according to Claim 11, wherein the penetration means is provided in the biochemical reaction cartridge.

13. (Original) An apparatus according to Claim 11, wherein the penetration means is provided to the biochemical treatment apparatus.

14. (Previously Presented) An apparatus according to Claim 11, wherein the biochemical treatment apparatus further comprises code reading means for reading an identification code provided to the biochemical reaction cartridge.

15. (Previously Presented) An apparatus according to Claim 14, wherein the biochemical treatment apparatus further comprises memory means for memorizing a driving sequence of said drive means in advance corresponding to the identification code.